

IRANIAN JOURNAL OF RADIOLOGY

A Quarterly Journal Published by the Iranian Society of Radiology
Volume 10, Supplement 1, 2013



Iranian Society of
Radiology



Tehran University of
Medical Sciences

www.IranJRadiol.com

ICR 2013

29th Iranian Congress of Radiology
Tehran, Iran
14-17 May 2013

Main Program and Abstracts

POSTER ABSTRACTS

• 1117

THE ROLE OF DIGITAL INFRARED IMAGING (DII) IN THE DETECTION OF BREAST CANCER

Sohella Refahi*, Tehran and Ardebil University of Medical Sciences; Gholamhassan Hadadi, Fasa University of Medical Sciences; Zohreh Behrouzkhia, Urmia University of Medical Sciences

The use of digital infrared imaging is based on the principle that metabolic activity and vascular circulation in both pre-cancerous tissue and the area surrounding a developing breast cancer is almost always higher than in normal breast tissue. In an ever-increasing need for nutrients, cancerous tumors increase circulation to their cells by holding open existing blood vessels, opening dormant vessels, and creating new ones. This process frequently results in an increase in regional surface temperatures of the breast. DII uses ultra-sensitive medical infrared cameras and sophisticated computers to detect, analyze, and produce high-resolution images of these temperature variations. Because of DII's extreme sensitivity, these temperature variations may be among the earliest signs of breast cancer and/or a pre-cancerous state of the breast. DII is based on detecting the heat produced by increased blood vessel circulation and metabolic changes associated with a tumor's genesis and growth. By detecting minute variations in normal blood vessel activity, infrared imaging may find thermal signs suggesting a pre-cancerous state of the breast or the presence of an early tumor that is not yet large enough to be detected by physical examination, mammography, or other types of structural imaging. In this review we explain the details of DII in the detection of breast cancer.

• 1118

NUTCRACKER SYNDROME ACCOMPANYING PELVIC CONGESTION SYNDROME: COLOR DOPPLER SONOGRAPHY AND MULTISLICE CT FINDINGS: A CASE REPORT

Mikail Inal*, TRD; M. Yasemin Bilgili, TRD; Safa Şahin, TRD

Nutcracker syndrome (NCS) is a rare pathology, caused by compression of the left renal vein (LRV) between the abdominal aorta (AA) and the superior

mesenteric artery (SMA), due to reduction of the angle between AA and SMA. These lead to left renal vein varices, left gonadal vein varices and also pelvic congestion syndrome. For this reason, coexistence of NCS and pelvic congestion syndrome has been described. It is manifested by hematuria, proteinuria, nonspecific pelvic pain secondary to pelvic congestion, dyspareunia and persistent genital arousal clinically. We report a 27-year-old woman who experienced hematuria and left flank pain. The diagnosis of NCS accompanied pelvic congestion syndrome was missed initially. Later on, pelvic congestion syndrome accompanying NCS diagnosis was made by color Doppler ultrasound (CDUS), abdominal computed tomography (CT) and CT angiography, which were later performed. She refused interventional and surgical treatments, and was lost to follow-up.

• 1119

SELECTING KEY PERFORMANCE INDICATORS FOR THE RADIOLOGY DEPARTMENT

Mahtab Karami*, Tehran University of Medical Sciences; Azin Rahimi, Tehran University of Medical Sciences

To improve the safety and quality of the care that radiologists provide, and to allow radiologists and radiology personnel to remain competitive in an increasingly complex environment, it is essential that all radiology departments establish and maintain managed, comprehensive, and effective performance improvement programs. In the radiology department, radiology-specific key performance indicators (KPIs) may help provide a framework for measuring performance in radiology practice. KPIs are financial and nonfinancial measures that are used to define and evaluate the success of an organization. Priority should be given to the KPIs that are considered by both the hospital and the radiology department to align most closely with the institutional strategy, mission, vision and values. Since KPIs create the basis for accountability, quality improvement, prioritization, and transparency in the department, their selection is intended to aid strategic decision making by facilitating the tracking of areas of departmental performance that have been targeted for improvement. In order to understand the process by which indicators are selected and established, it is necessary to define the quality and consider the levels of quality that exist in the ra-